

The Commonwealth of Massachusetts
Department of Energy Resources
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Boston, MA 02114
<http://www.mass.gov/doer>



Request for Responses
Massachusetts High-Performance Buildings Grant
Program

ENE-2010-006

September 18, 2009



American Recovery and Reinvestment Act

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1. PROCUREMENT CALENDAR

All dates are estimated and subject to change.

Issue RFR	September 18, 2009
Deadline to Submit Questions	October 2, 2009
Answers to Questions Posted on Comm-PASS	October 9, 2009
RFR Response Due	October 30, 2009 by 3:00 pm

2. CONTACT INFORMATION

This RFR, being conducted under 815 CMR 2.00, has been distributed electronically using the Commonwealth Procurement Access and Solicitation System (Comm-PASS system, <http://www.comm-pass.com>). The project name is The Massachusetts High Performance Buildings Grant Program, and the project number is ENE-2010-006. Correspondence to DOER should include this project number as well as the title. Respondents are advised to check the “last change” field on the summary page of this RFR on Comm-PASS to ensure that they have the most recent information.

All proposals and information submitted in response to this RFR are subject to the Massachusetts Public Records Law, M.G.L., Chapter 66, Section 10, and to Chapter 4, Section 7, Subsection 26. Any statements in submitted responses that are inconsistent with these statutes shall be disregarded.

All questions must be submitted by e-mail to Alissa Whiteman at: alissa.whiteman@state.ma.us. All answers, notifications, releases and amendments to this RFR will be posted on Comm-PASS.

Responses to this RFR will be received by:

Procurement Contact:	Alissa Whiteman Department of Energy Resources 100 Cambridge Street, Suite 1020 Boston, MA. 02114
Telephone:	(617) 626-7384
Fax:	(617) 727-0030
E-mail:	alissa.whiteman@state.ma.us
RFR Name:	Massachusetts High Performance Buildings Grant Program
RFR File Number:	ENE-2010-006

3. BACKGROUND AND PURPOSE OF PROCUREMENT

A. Massachusetts Recovery Plan

As part of Governor Patrick's Massachusetts Recovery Plan to secure the state's economic future, the Commonwealth seeks to invest in energy efficiency projects at facilities throughout the state using funds made available under the American Reconstruction and Recovery Act of 2009 (ARRA). Through the Energy Task Force of the Governor's Mobilization Effort conducted in preparation for ARRA, the Commonwealth has identified several different types of projects on which to focus funds for energy efficiency, as described in detail in the following pages.

B. Massachusetts Efforts on High-Performance Buildings

The mission of the Massachusetts Department of Energy Resources is to create a greener energy future for the Commonwealth, economically and environmentally, including:

- Accelerating the deployment of cost-effective energy efficiency,
- Increasing the development of greener energy resources,
- Implementing strategies to assure reliable supplies and improve the cost of clean, energy relative to fossil-fuel based generation, and
- Supporting MA clean energy companies and spurring MA clean energy employment.

Improving building energy performance, by reducing energy waste and increasing energy efficiency, is the quickest, least cost, and cleanest way to reduce the burden of energy costs on the economy, while also reducing greenhouse gas (GHG) and other pollutant emissions associated with buildings. DOER is committed to putting the Commonwealth at the hub of a 21st century clean energy economy, in part by making our state as energy efficient as possible. This will require using all the tools we have in our toolbox – changing light bulbs, sealing air leaks, and upgrading motors and HVAC equipment – to cut down energy waste. Because of our track record of success with energy efficiency programs over 30 years, and the Green Communities Act requirements to expand utility-operated energy efficiency programs, we are poised to deploy our existing tools for maximum effect.

But achieving our goals will also require fashioning new tools, and developing new strategies to:

- achieve deeper energy savings in buildings;
- more comprehensively and aggressively treat buildings heated by unregulated fuels;
- apply efficient and renewable building conditioning technologies; and
- develop workable models for encouraging more Commonwealth residents to take advantage of energy saving opportunities, thereby driving demand for energy efficiency goods and services.

Each of these strategies will have both direct and indirect workforce development and job creation benefits.

This RFR is intended to help Massachusetts achieve scalable and dramatic improvements in the energy performance of all buildings in the Commonwealth, beyond what is currently expected to be attained through existing state and utility energy efficiency programs. These improvements will be crucial to the Commonwealth's achievement of our energy policy goals. The Green Communities Act, signed by Governor Patrick in July of 2008, sets aggressive energy goals for the Commonwealth, including a 10% reduction in fossil fuel use in buildings by 2020 and 25% reduction in electric load by 2020.

Moreover, in March 2008, Governor Patrick issued a challenge to the building industry in Massachusetts to transform the building sector and help put Massachusetts on a path toward zero net energy buildings (ZNEB). A ZNEB is a highly energy efficient building with greatly reduced energy needs, such that over the course of a year, it generates energy onsite, using clean renewable resources, in a quantity equal to or greater than the total amount of energy consumed onsite. The ZNEB Task Force, a group of over 70 experts in building and energy-related industries and agencies, identified a number of ways to move Massachusetts toward the ZNEB vision.

Massachusetts has also had a state initiative for biomass energy and recognizes the new technology and market opportunities to bring high efficiency ultra low emissions wood chip and pellet heating technology into our heating fuel mix. These technologies can help reduce the Commonwealth's dependence on fossil fuels for heating and cooling.

C. Funding Opportunity Objectives

The intent of this Request for Response (RFR) is to fund projects or programs that will demonstrate solutions that dramatically improve building energy performance and that dramatically expand the number of buildings retrofitted. Projects funded under this solicitation must demonstrate innovation in the technology and/or business model employed and an explanation for how the approach could be applied to many other buildings in the state. Specific challenges that are blocking our path toward high performance buildings and renewable thermal and district energy technologies have been identified by the ZNEB Task Force, the Energy Efficiency Advisory Council, and other related efforts.

Program and projects should address one *or more* of the following challenges:

1. Demonstrating a deep energy retrofit (DER) at one or several existing buildings. A DER involves comprehensive building modifications designed to achieve at least a 50% reduction in annual energy consumption at each building, including but not limited to: passive solar elements, super-insulation, window upgrades, advanced HVAC, lighting, or building control systems.
2. Demonstrating transformative space conditioning technologies, including but not limited to:

- High-efficiency and ultra-low-emissions biomass-fired boilers and furnaces;
 - solar thermal space heating and/or cooling systems;
 - high-efficiency district heating or cooling systems;
 - waste heat driven absorption chilling or desiccant dehumidification systems,
 - passive and/or active thermal energy storage; or,
 - high-efficiency all-climate ground or air source heat pumps
 - *any combination of the above that demonstrates higher gained efficiencies.*
3. Demonstrating installation program of high-impact energy conservation measures (ECM) at buildings *heated with fuel oil, propane, and other unregulated fuels*. ECMs must include, but are not limited to: high-efficiency heating system, weatherization, and other measures to reduce building energy use.
 4. Demonstrating community mobilization program to dramatically increase the rate at which energy customers choose to participate in energy efficiency and renewable energy programs.

An estimated \$15 million will be available under this solicitation. Anticipated award sizes will range from \$0.5 million to a maximum of \$5 million, but the DOER reserves the right to make larger awards in exceptional circumstances if warranted.

The period of performance for projects funded under this RFR will not exceed 3 years.

D. Eligibility

All types of entities are eligible to apply as a prime applicant, including but not limited to for-profit organizations, non-profit organizations, institutions of higher education, and local governments. Proposed projects or programs must occur in Massachusetts.

4. INSTRUCTIONS FOR SUBMISSION OF RESPONSE

To be deemed responsive, each Respondent must mail in a **Response Package so that it is received by 3:00 pm on October 30th, 2009. Late responses will not be accepted.** All correspondence and filings submitted to DOER shall be directed to the Procurement Contact at the postal address set forth in Section 2.

Once the award is made, all submissions are subject to Public Record disclosure.

Response Package Contents:

Transmittal Letter: The transmittal letter should highlight any special features of the Response, and include the name, phone number, and email for the point of contact within the Respondent's organization, and must identify this RFR by the following number (ENE-2010-006): The transmittal letter should be signed by a representative of the Respondent's company or organization who has the authority to bind the Respondent.

Executive Summary (1 page limit): The executive summary must contain the key components of the response, including a short description, a statement of expected number of jobs to be created or retained by the response (using a standard methodology to be provided), expected total GHG emission reductions, and an explanation of how or why the proposed project/program will transform building energy performance in Massachusetts.

Narrative Section (20 pages limit): The narrative section will comprise eight major sections outlined below.

1. **Technical Merit and Innovation:**
 - 1.1. Provide a detailed discussion of the specific challenge or need the response will address and how the proposed approach is superior to currently available solutions.
 - 1.2. Provide a detailed discussion to prove the feasibility of the proposed approach including its technical merit based on sound engineering principles.
 - 1.3. Provide a detailed discussion of the strategy used to bring participants into the program/project, if applicable.
 - 1.4. Provide a detailed discussion of adequacy (quality, availability and appropriateness) of facilities and equipment to accommodate the proposed project.
 - 1.5. Provide a detailed discussion of the key risks in the deployment of the proposed approach.
2. **Energy and environmental benefits:** An explanation of the energy and environmental benefits provided by successful implementation of the project in the short term and long term.
 - 2.1. Provide evidence for substantial energy benefits from the system by first quantifying the energy cost savings per square foot relative to an appropriate baseline for the specific installation. Then provide evidence that this approach can be extended to

- other buildings in order to estimate total energy savings potential for the state of MA. Include both annual and lifetime energy savings benefits offered by the system, expressed in terms of kWh, therms, gallons of heating oil, or other appropriate metric, and also in MMBtu equivalents.
- 2.2. Provide evidence of significant environmental benefits including, but not limited to: reduced global warming potential, lower direct releases of water, air and ground pollutants, improved indoor air quality, improved recyclability and beneficial human health impacts. Provide evidence that the approach can be extended to other buildings and estimate the total environmental benefits that could be achieved if a reasonable number of buildings were to adopt this approach.
 - 2.3. Calculate annual energy cost savings and estimated simple payback period compared to the existing baseline system.
3. **Economic benefits:**
 - 3.1. Provide an explanation of the number of direct jobs that would be created and/or retained, reported on a full-time equivalent basis.
 - 3.2. Provide evidence of ability to begin work soon after being awarded funding.
 4. **Measurement and Verification:** A description of how performance will be defined, measured, and verified
 - 4.1. Explain program/project metrics that will be used to define performance
 - 4.2. Explain the measurement and verification methodology to be used to monitor performance, including in the years after the project is completed.
 5. **Replicability:** Provide a detailed discussion of the extent to which the proposed program/project has the potential to help transform building energy performance in Massachusetts.
 - 5.1. Provide evidence that the technology or business model can be replicated in many other buildings to achieve broad energy savings impacts.
 - 5.2. Provide evidence of the extent to which program/project is likely to help create an infrastructure that will help support similar projects/programs beyond the term of the contract.
 6. **Applicant Qualifications and Experience** (3 pages limit): Qualifications and experience of the project/program team.
 - 6.1. Provide evidence of current or recent experience and success in similar projects resulting in successful technology deployment or business model adoption.
 - 6.2. Provide brief single paragraph resumes for each key project team member and a description of each team member's work experience with respect to projects/programs of a similar scale/budget. Full resumes for key team members may be included in an Appendix and do not count toward the 20 page limit.
 - 6.3. Provide evidence of availability of key personnel to complete the proposed project. For key personnel which are not staff members of the applicant's organization, provide evidence of the availability of such personnel, consistent with their role in the proposed tasks, to validate the overall team experience being proposed.
 - 6.4. Provide any statements of support from other entities detailing how such entities intend to provide short- or long term support.

7. **Project Management Plan** (4 pages limit): A program/project management plan including milestones and deliverables and work breakdown by task. Provide a Gantt chart or equivalent depicting the project schedule, milestones, and interrelationship of the project tasks. Identify the critical path which identifies the sequential tasks which, if not completed on time, will result in a delay in the overall project schedule.
8. **Project Budget** (3 pages limit): A detailed budget plan that includes budget estimates for the prime and sub contractors and additional breakdown of budget required to achieve each major milestone in the project. Highlight other resources that will be leveraged such as matching funds, private financing, or tax credits.

5. EVALUATION AND AWARD

A. Process

All submissions under each topic area will be evaluated based on the components of the response package outlined in Section 4-A. Once all the responses have been reviewed, DOER will make a final determination on which projects merit funding in each topic area. DOER intends to DOER reserves the right to make no awards if the responses do not meet a sufficient standard based on the evaluation criteria set forth.

B. Award and Contract Execution

All Respondents will be notified in writing of DOER's award decision. The Commonwealth reserves the right to reject any requested changes identified by the Respondent if not previously agreed upon during the response review and interview process. If an acceptable contract cannot be reached with any Respondent regarding a selected project within 30 days of the written funding notification, DOER may withdraw its selection of the project.

6. TERMS AND CONDITIONS

[Commonwealth of Massachusetts Terms and Conditions and ARRA Terms and Conditions that apply to this grant will be included in an amendment to this RFR.]